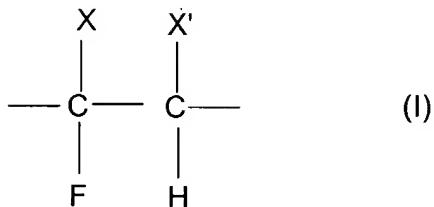
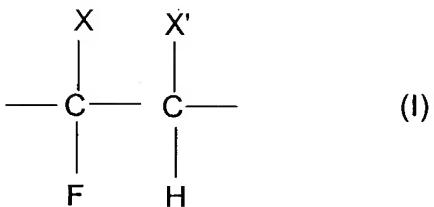


1. A process for the chemical modification of a fluorinated polymer (FP1), comprising units of formula (I):



in which X and X' can be, independently of one another, a hydrogen atom, a halogen, or a perhalogenated alkyl, said process comprising subjecting an aqueous dispersion of said fluorinated polymer to a partial dehydrofluorination by a base and subsequently reacting partially dehydrofluorinated fluoropolymer with an oxidizing agent to give a fluorinated polymer (FP2) and wherein said dehydrofluorinated fluoropolymer is insoluble in an organic solvent.

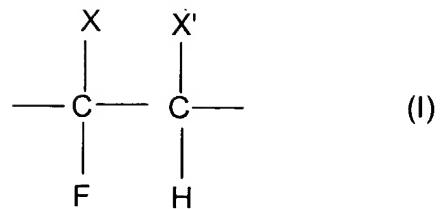
3. A process for the chemical modification of the surface of an item, said surface comprising at least one region [made] of a fluorinated polymer (FP1) comprising units of general formula (I):



in which X and X' can be, independently of one another, a hydrogen atom, a halogen, or a perhalogenated alkyl said process at least the region of said surface to partial dehydrofluorination in aqueous medium by contact with a base, said surface region of partially dehydrofluorinated polymer being subsequently subjected to contact with an oxidizing agent in order to convert said surface region.

4. A process according to claim 3, in which the item being provided in the form of a film, of a strip, of a plate or of a pipe, at least one of the faces of said film, strip, plate or pipe comprising a fluorinated polymer is subjected to a partial dehydrofluorination by contact with a base, characterized in that a face which has been subjected to this dehydrofluorination is subsequently subjected to contact with an oxidizing agent.
5. A process according to claim 1, characterized in that X is F and X' is H.
6. A process according to claim 1, characterized in that the fluorinated polymer comprising units of general formula (I) is poly(vinylidene fluoride).
7. A process according to claim 1, characterized in that the oxidizing agent is hydrogen peroxide (H_2O_2) in aqueous medium.
8. A process according to claim 7, characterized in that the contact with aqueous H_2O_2 is carried out at a pH ranging from 6.5 to 8.
9. A process according to claim 8, characterized in that the pH is from 6.7 to 7.6.
10. A process according to claim 7, characterized in that the reaction or the contact with aqueous H_2O_2 is carried out at a temperature ranging from 20°C to 100°C°.
11. A process according to claim 10, characterized in that the temperature is from 50°C to 90°C.
12. A process according to claim 1, characterized in that the oxidizing agent is hypochlorite in aqueous medium.
13. A process according to claim 12, wherein the reaction with the hypochlorite is carried out at a pH ranging from 6 to 14.
14. A process according to claim 12, wherein the reaction with the aqueous hypochlorite is carried out at a temperature ranging from 20°C to 100°C.

15. A process according to claim 14, characterized in that the temperature is from 50°C to 90°C.
16. A positive electrode for a lithium-ion battery comprising a layer comprising a binder for mixed oxide particles, which binder is also an agent for adhesion of a layer to a metallic collector, characterized in that the binder is a fluorinated polymer chemically modified according to the process of Claim 1.
17. A negative electrode for a lithium-ion battery comprising a layer comprising a binder for the carbon and/or graphite particles, which binder is also an agent for the adhesion of a layer to a metallic collector, characterized in that the binder is a fluorinated polymer chemically modified according to the process of Claim 1.
18. A coating for a metallic or polymeric substrate, comprising a fluorinated polymer (FP₂) chemically modified according to the process of Claim 1.
19. Granules of modified fluorinated polymer which are obtained by removing resultant powder from said aqueous dispersion obtained by the process of Claim 2 and then passing moistened powder through a die under mechanical pressure.
20. A process for the chemical modification of a fluorinated polymer, said process comprising providing a partially defluorinated fluoropolymer and reacting said partially defluorinated fluoropolymer with an oxidizing agent.
21. A process according to Claim 20, wherein said partially defluorinated fluoropolymer has been produced by subjecting a fluorinated polymer to partial defluorination by a base.
22. A fluorinated polymer (FP₂) produced according to the process of claim 1.
23. A process for the chemical modification of a fluorinated polymer (FP₁), comprising units of formula (I):



in which X and X' can be, independently of one another, a hydrogen atom, a halogen, or a perhalogenated alkyl, said process comprising subjecting said fluorinated polymer in an aqueous dispersion to a partial dehydrofluorination by a base, and subsequently reacting partially dehydrofluorinated fluoropolymer with an oxidizing agent in heterogenous aqueous medium to give a fluorinated polymer (FP2).

24. The process according to claim 1, wherein the fluorinated polymer FP2 is in the form of a powder.

25. The process according to claim 24, wherein said powder is granulated into granules with a size between 200 µm and 10 mm.

26. The process according to claim 1, wherein said fluorinated polymer FP1 is a vinylidene fluoride homopolymer.